

5 AXIS PERFECTA



DESIGN FEATURES

SERVO MOTORS

All the movements are provided by INOVANCE digital drives and servo motors and all the linear rails and linear bearings are from HIWIN, providing 40m/min max travel for XY, 2.5m/min max travel Z axis and 4000°/sec for A and C axis.

AUTOMATIC LUBRICATING PUMP

The machine comes with stainless steel covers and auto lubricating pump. The machine's cutting tank is not attached to the frame, so the resonance and thermal expansion from the tank doesn't affect the gantry frame.

DIAMOND CUTTING HEAD

The cutting head is a high quality US made product which features the best in diamond orifice giving accuracy and longevity.

ABRASIVE BUCKET

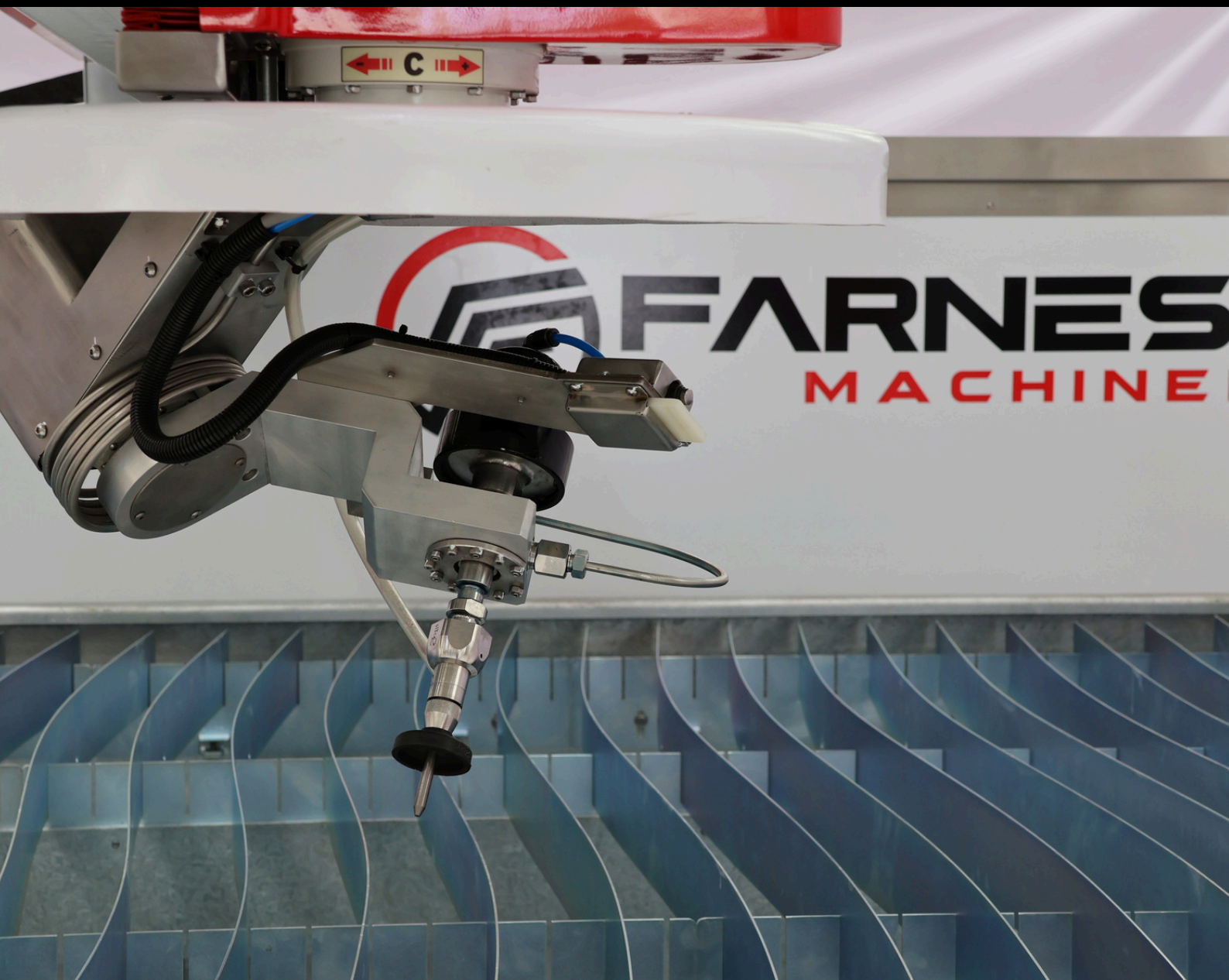
The machine includes an abrasive bucket for the abrasive inlet, with automatic feed and mixing disk, where the total volume is 100 litres.

PERFECTA 5 AXIS 3600 X 2000

FEATURES

Founded in 2000 by the Farnese family, Farnese Australia are designers and manufacturers of stone cutting and polishing machinery in Australia. With an international reputation and decades of combined professional experience, and expertise, in both the stone industry and the local stone machinery manufacturing industry, Farnese are the first choice for stone fabricators. They continue to dominate this field in Australia and overseas with precision and innovation.

The Perfecta is the most versatile cutting machine that money can buy. It enables the cutting of stone and other types of materials, allowing you to expand your business into other markets. The Perfecta empowers you to cut glass, plastics and many other materials with no setup or tool changing required.



A red vertical cutting head of a PERFECTA 5-axis CNC machine is shown in a factory setting. The head is mounted on a gantry and has a cutting tool at the bottom. The background shows a large industrial space with a high ceiling and red curtains.

PERFECTA 5 AXIS 3600 X 2000

FEATURES

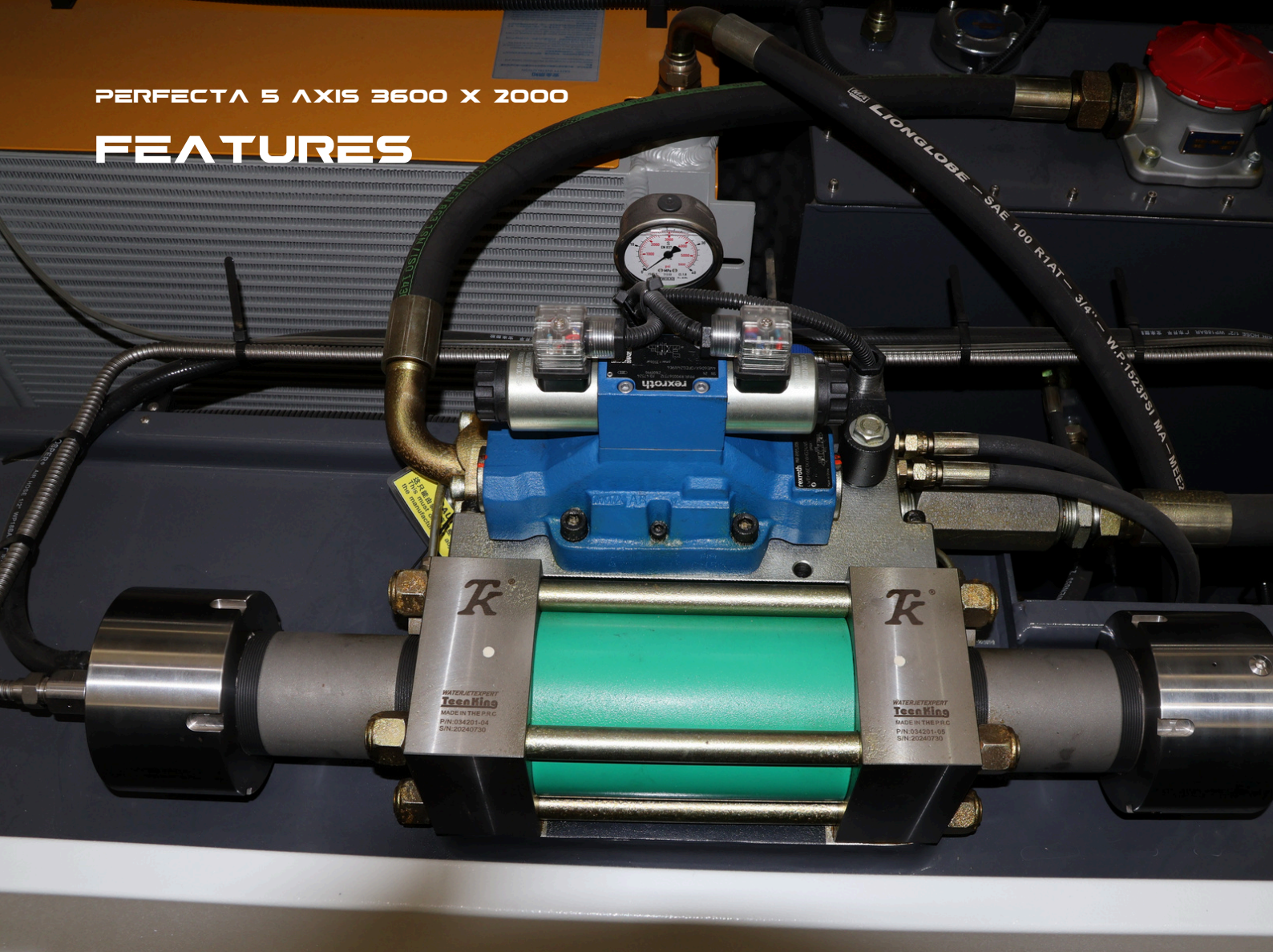
The 5 axis cutting head can provide cutting in different angles from 90 to 20 degrees (depending of the material and setup applied), these 3 or 5 axis cuttings can be executed due a complex interpolation provided by a high-end US program called AlphaCAM which is included with the equipment, empowering you to run with full power.

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The general tolerance provided by the motors is +/- 0.05mm for X and Y axis per 300mm, and for the A, B and C axis it is +/-2arc/sec. The machine can be calibrated within the software interface to provide, on the initial first setup, exactly the dimension required for one main material and after that the cutting precision can change according to the parameters related above.

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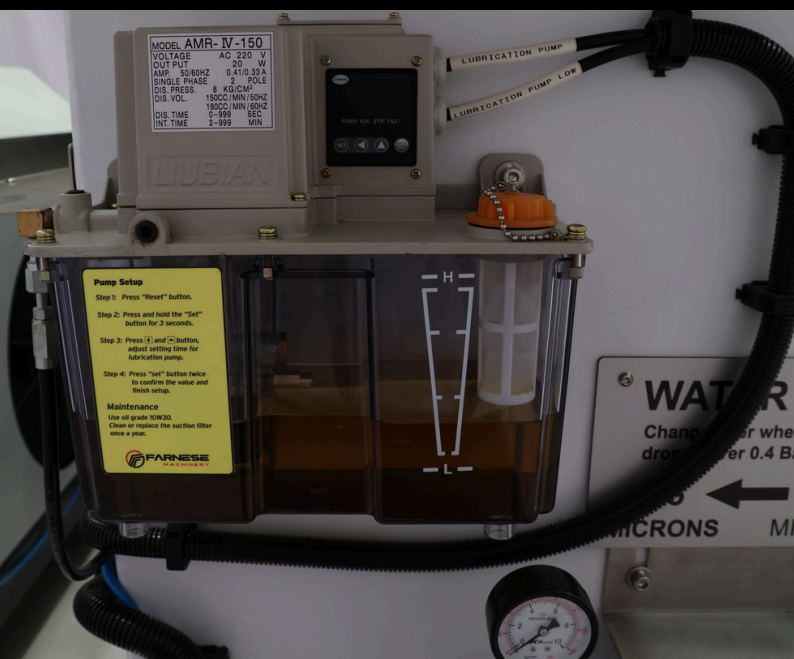
FEATURES



Pump Unit

One of the most important parts of a waterjet machine is the pump. This waterjet uses a high-pressure pump system containing a big 37kW(50hp) motor, Bosch Rexroth variable oil pump and a HRTI style intensifier.

This setup generates a maximum of 60,000psi (415Mpa) and during the cutting process 50,000psi (360MPa) pressure, the oil tank capacity is 91 litres - large tank capacity is an essential feature and permits the air-oil cooling system to become more efficient, especially during the summertime or on warm days. The high and low pressure setup for piercing and cutting can be preset, the outlet flow is 3.6 litres per minute using a 0,33mm orifice and the power consumption 28kW.



On the pump unit you will be able to get feedback from gauges such as: Oil pressure, Temperature, Inlet water pressure, high pressure, and the air inlet pressure is provided by a gauge next to the front pendant. The cutting head is DTI diamond orifice.

The cutting head components consist of mixing chamber, nozzle and jewel can be replaced in case of a crash or natural wear/ tear; these components can be purchased from local suppliers and the setup can be explained for a worker/ operator during the installation process.

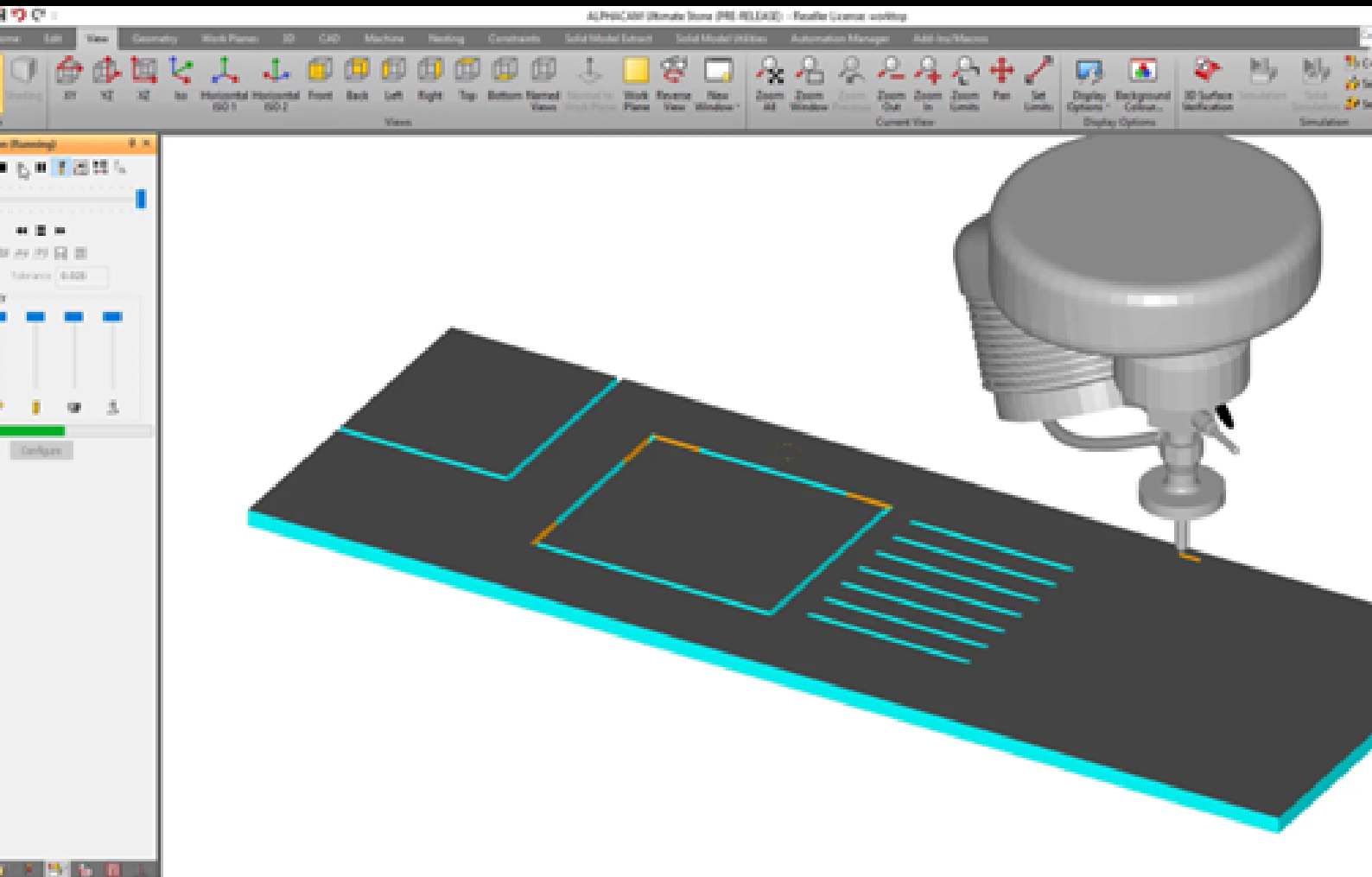
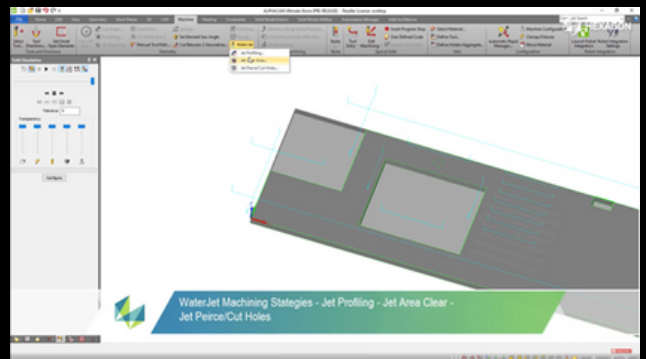
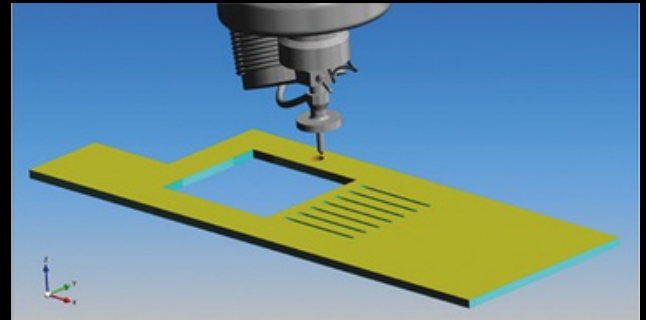
The machine is also fitted with a material thickness probe which is used by AlphaCAM to measure the height variation of the cutting points; this allows to change the Z height when cutting mitres thus obtaining a more accurate cutting measurement.

FEATURES

ALPHACAM

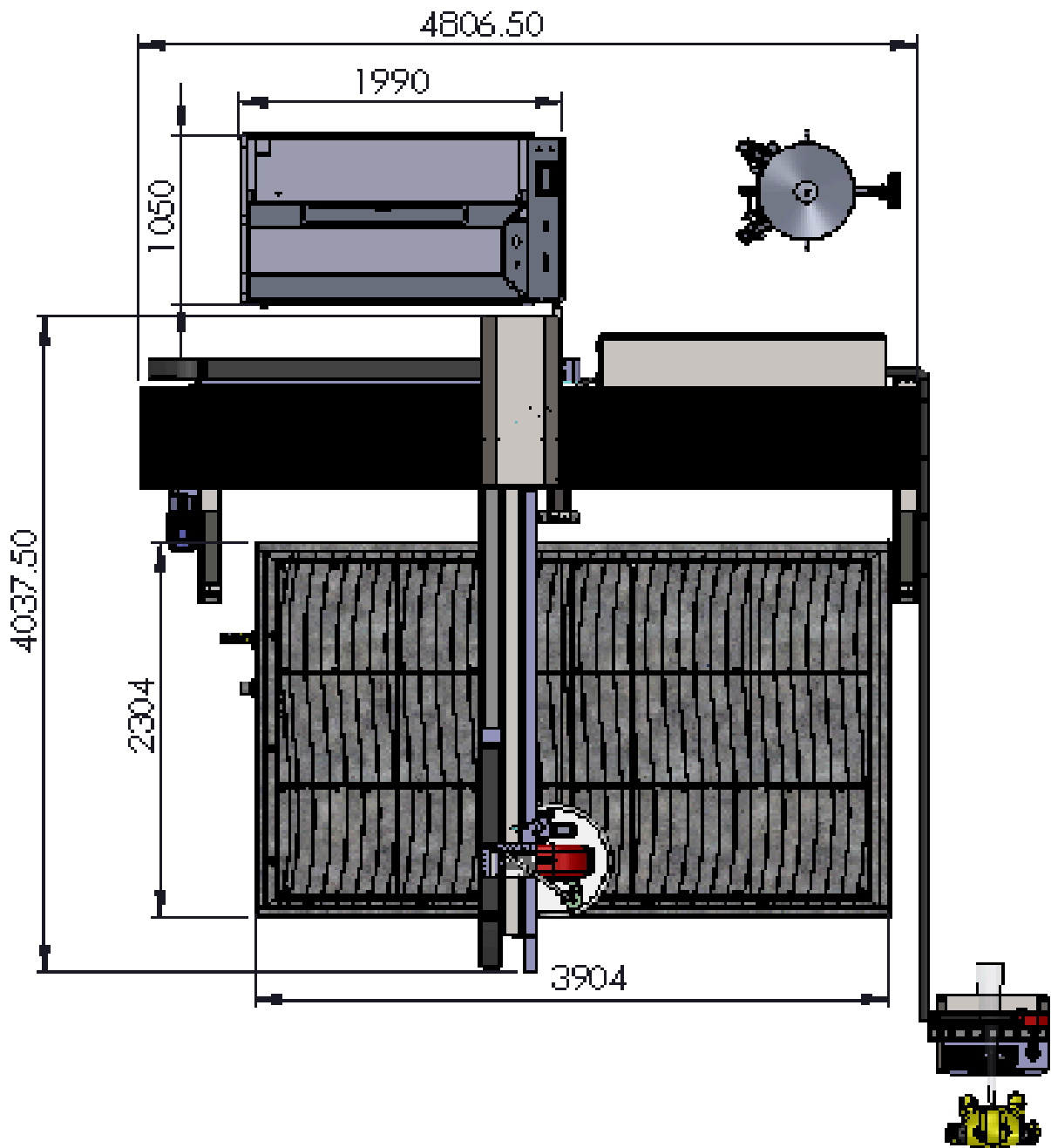
ALPHACAM is a leading CAD CAM software provider for the stone industry, offering solutions for machining marble and stone. ALPHACAM Stone supports 2D and 3D geometry creation and import, including formats like DXF, DWG, IGES, and STL. It excels in contouring, allowing precise tool control and graphical simulation, and supports tool radius compensation for machining and polishing granite kitchen worktops. Machining styles streamline repetitive tasks, while elliptical and circular polishing strategies ensure high-quality finishes.

The software also supports pocketing, core drilling, 2.5D milling, and disc cutting. Pocketing removes material efficiently, core drilling prevents edge chipping, and 2.5D milling creates profiles with flat or radius tools. Disc cutting, a powerful feature, allows machining around contours and finishing profiles with programmable safety guards. These capabilities make ALPHACAM Stone a versatile tool for modern stone craftsmen.



PERFECTA 5 AXIS 3600 X 2000

TECHNICAL DRAWING



TECHNICAL SPECIFICATIONS

Dimensions of Installed Machine	Metric	Imperial
Width	4806.50 mm	189.2 in
Depth	4037.50 mm	158.9 in
Height	2456 mm	96.6 in
Weight	955 kg	2105.41 lb

This equipment can be installed outdoors, consult your local Farnese dealer.

Features & Feeds:

Mixing Station		YES
21" Screen Interface		YES
AlphaCAM WJ software		YES
Automatic lubrication system		YES
Adjustable garnet control		YES
Mixing Tank Capacity		171.7 GAL
Number of Filters		3
Power Required	I	400V 3ph 50Hz 60A

CONNECTIONS REQUIRED (SUPPLIED BY CUSTOMER)
POWER, WATER, COMPRESSED AIR
TOOLING | CONSULT YOUR LOCAL FARNESE DEALER FOR
ANY TOOLING REQUIRED

We Know That Support Is Important To You.

Buying a new machine is a big commitment for anyone and continued support throughout the life of that machine is vital.

Being a local company, Farnese carry a vast array of parts locally to ensure that your machine always has the spares it needs. Enjoy peace of mind knowing that you'll be fully supported by Farnese and we'll always have you covered.

Farnese customers don't need to experience unnecessary machinery downtime waiting for remote assistance from other countries, as all the support and remote assistance is provided locally from our own qualified Technicians.

Our mission here at Farnese is to give you the best support in the industry. As we grow, we continue to recruit more and more qualified technicians to further strengthen our position in the Stone Industry.



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